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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,048	09/30/2003	Kang-Chung Cheng	US920022	7711

7590 02/08/2005

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EXAMINER	
HARRISON, CHANTE E	

ART UNIT	PAPER NUMBER
2675	

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/677,048	CHENG, KANG-CHUNG	
	Examiner	Art Unit	
	Chante Harrison	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,6,7,11,13 and 14* is/are rejected.

7)☒ Claim(s) *2,3,5,8-10,12,15 and 16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 4, 6-7, 11, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrew Benson, US 5,650,800, 7/1997.

As per independent claim 1, Benson discloses a universal asynchronous receiver/transmitter interface for receiving state data for outputting said state data in a serial mode (i.e. UART supports the interface for loading information to microprocessor for output of system status) (col. 6, ll. 46-55; Fig. 2 "54"); and a displaying device including: a microprocessor coupled to said universal asynchronous receiver/transmitter interface for outputting a displaying signal in corresponding to said state data output by said universal asynchronous receiver/transmitter interface (col. 5, ll. 45-50).

Benson fails to specifically disclose a multi-segment display module coupled to said microprocessor for displaying a symbol in corresponding to said displaying signal.

Benson teaches a display having segmented areas for displaying system data (Fig. 6), where the segmented display areas correspond to areas of the display that are able to accept user input.

It would have been obvious to one of skill in the art to incorporate a multi-segment display module with the disclosure of Benson because multiple interactive display areas creates multiple segments on the display module for displaying status data.

As per dependent claims 4, 11 and 13, Benson discloses said symbol is selected among a numeral, an English letter and a specific character (Fig. 6).

As per dependent claim 6, Benson discloses said state data output by said universal asynchronous receiver/transmitter interface is of a specification of RS-232 (col. 6, ll. 47-51).

As per dependent claim 7, Benson discloses said state-displaying device is connected externally to a serial port (Fig. 2).

As per dependent claim 14, Benson disclose said state data is generated by a BIOS program of said data processing device (i.e. microprocessor provides system status based on conditions which are stored in the BIOS module) (col. 8, ll. 3-10; col. 5, ll. 45-50).

1. Claims 2-3, 5, 8-10, 12, 15-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chante Harrison whose telephone number is 703-305-3937. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on 703-305-4713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chante Harrison
Examiner
Art Unit 2672

Ceh
January 18, 2005

MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

10/677,048
1/20/03

What is claimed is:

1. A state-displaying device for displaying state data generated by a data-processing device, said state-displaying device comprises:

a universal asynchronous receiver/transmitter interface for receiving state data for outputting said state data in a serial mode; and col. 6 46-55 Fig. 2 "54" UART supports the interface for loading info to microprocessor for output of system status

a displaying device including:

a microprocessor coupled to said universal asynchronous receiver/transmitter interface for outputting a displaying signal in corresponding to said state data output by said universal asynchronous receiver/transmitter interface; and col. 5, 45 - 50

a multi-segment display module coupled to said microprocessor for displaying a symbol in corresponding to said displaying signal. Fig. 3, Fig. 6

2. The state-displaying device as in claim 1, wherein said multi-segment display module at least is composed of a seven- segment display.

3. The state-displaying device as in claim 1, wherein said data-processing device is selected between a server and a personal computer.

4. The state-displaying device as in claim 1, wherein said symbol is selected among a numeral, an English letter and a specific character. Fig. 6

5. The state-displaying device as in claim 1, wherein said universal asynchronous receiver/transmitter interface includes a data transmitting line Tx, a data receiving line Rx, a power line and a grounding line (Gnd).

6. The state-displaying device as in claim 1, wherein said state data output by said universal asynchronous receiver/ transmitter interface is of a specification of RS-232. col. 6, l 47-51

7. The state-displaying device as in claim 1, wherein said state-displaying device is

connected externally to a serial port.

8. The state-displaying device as in claim 1, wherein said state data includes an on/off bit, at least a command mode bit and a plurality of displaying bits, said command mode bit is used to define a mode of displaying of said displaying bits, said microprocessor decides a mode of displaying of said multi- segment display module according to said mode of displaying of said displaying bits.

9. The state-displaying device as in claim 8, wherein said command mode bit is used to decide between a searching mode and a following-the-sequence mode.

10. The state-displaying device as in claim 9, wherein when said microprocessor decides that a mode of displaying of said multi-segment display module is said searching mode, it makes said multi-segment display module to display said symbol according to said displaying signal which is generated by searching in a table according to values of said displaying bits.

11. The state-displaying device as in claim 10, wherein said symbol is selected among a numeral, an English letter and a specific character.

12. The state-displaying device as in claim 9, wherein when said microprocessor decides that a mode of displaying is said following-the-sequence mode, a selecting bit of said displaying bits is used to designate a seven-segment display to be enabled, and said enabled seven-segment display is rendered to display said symbol according to the state of a plurality of segment- selecting bits of said displaying bits.

13. The state-displaying device as in claim 12, wherein said symbol is selected among a numeral, an English letter and a specific character.

14. The state-displaying device as in claim 1, wherein said state data is generated by a BIOS program of said data-processing device. col. 8, 3-10 ; col. 15, l. 45-50 provides sys status based on microp ... conds. which are stored in the BIOS module

15. The state-displaying device as in claim 1, wherein said state data is generated by a

detecting application program of said data-processing device.

16. The state-displaying device as in claim 15, wherein said detecting application program is executed in an operating system of said data-processing device.